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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/502,090

07/22/2004

Ingvar Andersson

027651-246

4014

21839 7590 05/27/2009  
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EXAMINER

JACOBSON, MICHELE LYNN

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

05/27/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/502,090	<b>Applicant(s)</b> ANDERSSON, INGVAR	
	<b>Examiner</b> MICHELE JACOBSON	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8 and 10-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7, 8 and 10-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

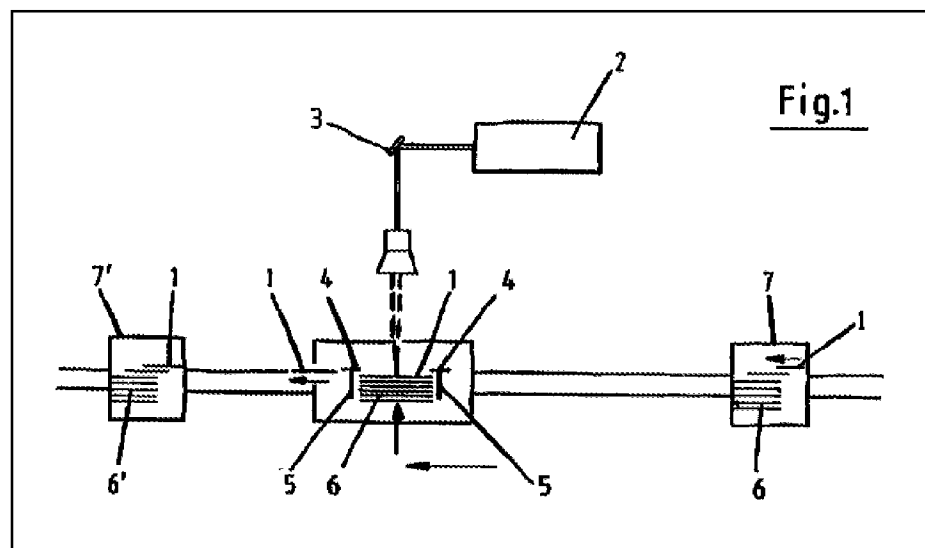
1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4, 8, 10-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiteder et al. U.S. Patent No. 6,007,756 and Masui U.S. Patent No. 4,834,244.

3. Weiteder et al. disclose "A process and device for perforating and/or semi-cuts in printed multilayer composite material by means of laser beams from at least one laser arranged in a laser station." (See Fig 1, and Col. 1, lines 6-9). Said multilayer

composite materials including paperboard laminated with polyethylene useful for packaging (Col. 1, lines 12-14). Weiteder et al. also disclose means for

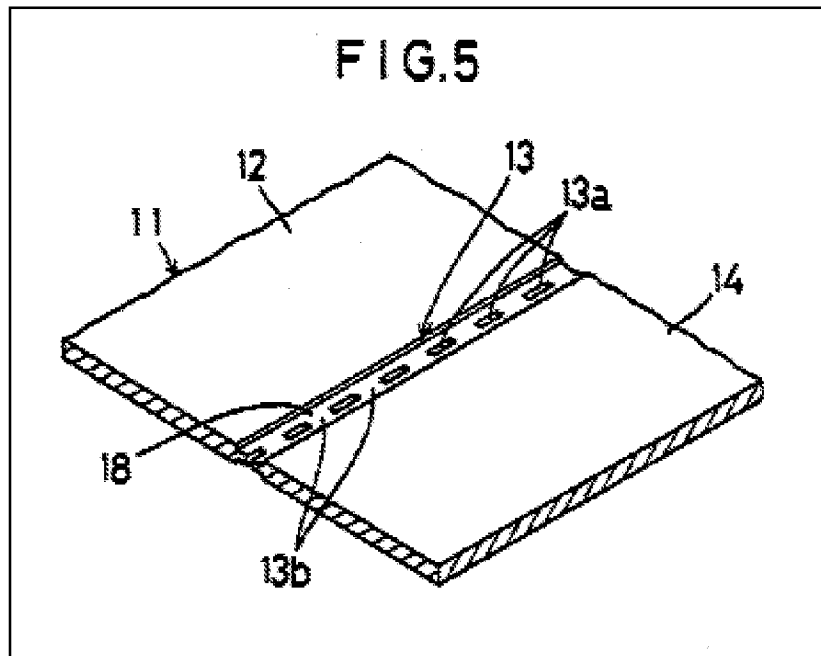


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laterally feeding the paperboard to a cut station. (Col. 3, lines 14-20)

4. Weiteder et al. are silent regarding compressing the region of the laminated material to be perforated prior to laser perforation.

5. Masui discloses “a boxboard-made case for use in packaging facial tissues or the like”. (Col. 1, lines 6-8) Masui furthermore discloses “On the top wall **12** of the case **11** there is embossed a ruled line **18** extending along the line of



perforations **13** in overlapping relation therewith” (See Fig. 5 and col. 2, lines 41-43)

The ruled line may be provided prior to perforation. (Col. 2, lines 44-46) “The ruled line **18** provided along the line of perforations **13** in overlapping relation therewith serves to break the body of the boxboard at non-cutout portions and concurrently to break the fiber structure of the boxboard through application of a force of compression, so that the strength of the non-cutout portions **13a** is considerably lowered. Thus, when the perforations **13** are cut off, the ruled line **18** serves to guide the force of tearing from one cutout **13a** to a next adjacent cutout **13a**.”(Masui, Fig. 5, col. 2, line 61- Col. 3, line 2).

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6. Both Weiteder and Masui are directed towards paperboard packaging manufacturing. One of ordinary skill in the art at the time the invention was made would have been motivated as taught by Masui to provide a compressed ruled line prior to laser perforation of a laminate as disclosed by Weiteder in order to weaken the non-perforated portions of the paperboard core layer of the packaging laminate which would have facilitated opening of the package.

7. It would have been obvious to one having ordinary skill in the packaging arts at the time the invention was made to have compressed the paperboard laminate prior to perforating it with laser exposure.

8. Regarding claims 1, 8, 12 and 16: As stated in Masui, the strength of the non-cutout portions of the fiberboard is decreased by compression. Masui clearly recites the method step recited in claim 1 and the product-by-process step recited in claim 8 of compressing the paperboard before the perforation step. It would have been obvious to one of ordinary skill in the art to optimize the amount of compression of the paperboard in order to control the frangibility of the laminate depending on the intended use of the package. This obvious optimization of a result effective variable would have resulted in the method and article with a percent of compression within the relatively broad ranges claimed in claims 1, 8, 12, and 16. The compression line taught by Masui combined with the laser perforation taught by Weiteder would inherently provide a laminate as recited in claims 1 and 8 where the “build-up of thermoplastic residual material around the perforation line after the laser burning ... [is] *substantially* located entirely below the level of the surrounding surface of the packaging laminate”. The

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examiner notes that although the motivation to combine Weiteder with Masui is different from the applicant's stated motivation of "solving the problem of the build up of ridges of residual material" (Col. 2, line19); since the combination of these references results in an article produced by the same method as that claimed by applicant, the attribute claimed naturally flows from the references cited. Therefore, the obvious modification and optimization of the invention of Weiteder to improve the frangibility of the laminate by providing a compression line prior to laser perforation of the laminate would have produced the same invention claimed in claims 1, 8, 12 and 16.

9. Regarding claims 3, 10, 13 and 17: It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the compression line wider than the perforation line because on and around the perforation line is where the laminate would need to be weakened to facilitate tearing. The obvious optimization of this width to increase the frangibility of the laminate product would have produced the same invention as claimed in claims 3, 10, 13 and 17.

10. Regarding claim 4: Weiteder teaches a means for laterally feeding the paperboard to a cut station. Since it was universally known in the art at the time the invention was made to utilize rollers in the manufacture laminate webs it would have been obvious to one having ordinary skill in the packaging arts at the time the invention was made to provide a station for handling the packaging laminate and to use rollers for the means of transporting the laminate which would have resulted in the same invention as claimed in claim 4.

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11. Regarding claims 11 and 18: Weiteder teaches using polyethylene or polypropylene as the thermoplastic material to produce a paperboard laminate as recited in claim 11. It would have been obvious to one having ordinary skill in the packaging arts at the time the invention was made to vary the surface weight or grammage of the thermoplastic material as recited in claims 11 and 18 in order to optimize the product based on the end use of the film. A thicker layer would provide more protection of the paperboard while a thinner layer may be preferable for lighter weight packaging. Furthermore, there appears to be no criticality to the ranges of surface weight or grammage of the thermoplastic material as recited in claims 11 and 18. The obvious optimization of the thickness of the polyethylene or polypropylene coating recited by Weiteder would have produced the same invention claimed in claims 11 and 18.

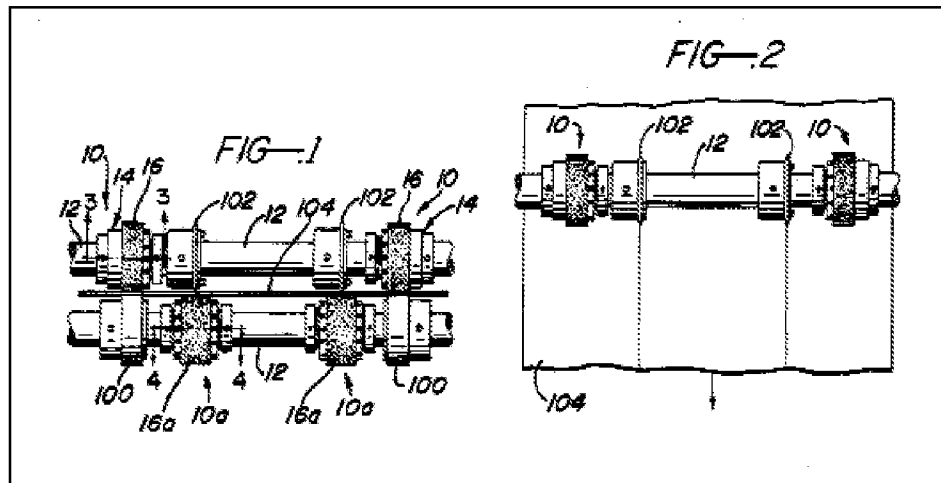
12. Regarding claims 19 and 20: Since the paperboard used for the core of the laminate would have less structural integrity than the thermoplastic material coating, during the compression step taught by Masui the thermoplastic material would inherently sink in but not be compressed. Instead, the paperboard would be compressed resulting in the same method and article as claimed in claims 19 and 20.

13. Claims 5, 7, 14, 15, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiteder et al. U.S. Patent No. 6,007,756 and Masui U.S. Patent No. 4,834,244 and Sprung U.S. Patent No. 5,035,037 (hereafter referred to as Sprung).

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14. Weiteder and Masui teach what has been recited above but are silent regarding the dimensions of the tool used to compress the paperboard laminate and the necessity of a smooth counter roller.

15. Sprung teaches smooth counter rollers opposite creasing rollers comprising an annular ridge with an adjustable



gap to provide creases in paper articles. (Figs. 1 and 2, Col. 4, lines 56-66)

16. Weiteder, Masui and Sprung are all directed towards articles manufactured from paper. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the configuration of a creasing roller comprising an annular ridge and smooth counter roller taught by Sprung in order to simplify the compression step taught by Masui by eliminating the need to accurately align male and female rolls and counter rolls. The simplification of the compression taught by Masui by utilizing a smooth counter roller would have resulted in the method and article claimed in claims 21 and 22.

17. Regarding claims 5, 7, 14 and 15: It would have been obvious to one of ordinary skill in the art at the time the invention was made to have optimized the result effective variables of the size of the projections on the compression tool used to achieve the



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desired compression width and depth, as well as to utilize an adjustable gap between the roller used to compress the paperboard and the counter roller as this relates directly to the width and depth of the compressed area. The examiner takes official notice that it is universally known in the packaging arts to set up manufacturing plants where all of the steps necessary to produce articles take place. To produce modified invention of Weiteder such a plant would obviously comprise a coating station, compression station and perforation station along with subsequent processing stations comprising rollers. The obvious use of a creasing roller and a smooth counter roller optimized for depth and width of the crease in such a manufacturing plant would have been the same as the invention claimed in claims 5, 7, 14 and 15. Additionally, there appears to be no criticality to the ranges of size neither for the projecting compression portion of the roller as recited in claim 5, 14 and 15.

18. Regarding claim 7: It would have been obvious to one having ordinary skill in the packaging arts at the time the invention was made to provide a station for handling the packaging laminate of claim 5 that uses rollers for the means of transporting the laminate as taught by Weiteder and recited in claim 7.

### ***Response to Arguments***

19. Applicant's arguments filed 3/9/09 have been fully considered but they are not persuasive.

20. In response to applicant's argument that since the examiner's motivation to combine the references of Weiteder and Masui is not to reduce the build-up of

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thermoplastic material substantially below the level of the surrounding surface of the laminate, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Applicant has repeatedly asserted in the remarks that the examiner did not provide a clear explanation of how the obvious modification of Weiteder with Masui would result in the same invention claimed by applicant since neither Weiteder nor Masui were specifically directed towards disposing the build up thermoplastic material surrounding a perforated laser line below the surface of the laminate.

21. As stated in the MPEP 2112.01 I “Where the **claimed and prior art products are identical or substantially identical in structure** or composition, or **are produced by identical or substantially identical processes**, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, **the applicant has the burden of showing that they are not.**” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the *prima facie* case can be rebutted by **evidence** showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. See also *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985)”.

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22. As previously stated by the examiner in the previous office action (see paragraphs 8 and 35), the combination of Weiteder with Masui results in a method wherein a paperboard laminate coated with thermoplastic is provided with a ruled compression line in which a laser perforation line is formed. Applicant's claimed method comprises the steps of forming a compression line on a paperboard laminate coated with thermoplastic material and forming a laser perforation line within the compression. The disposition of the thermoplastic material below the level of the surrounding area is a *direct result* of the disposition of the laser perforation within the pre-formed compression line. The combination of Weiteder with Masui clearly results in the laser perforation line being disposed in the compression line after the formation of the compression line. Therefore, the examiner has clearly shown that the combination of Weiteder and Masui results in the same method claimed by applicant which would inherently result in the same article. As stated in the MPEP 2112 II "There is **no requirement** that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference. *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377, 67 USPQ2d 1664, 1668 (Fed. Cir. 2003)". As such, applicant's assertions that the examiner has failed to provide any rationale for the assertion of inherency is not found persuasive.

23. Applicant has asserted on page 12 of the remarks that providing a compression line to the invention of Weiteder consistent with the teachings of Masui would not predictably result in the claimed relationship set forth in claims 1 and 8. However, as stated in MPEP 2144 IV "It is **not necessary** that the prior art suggest the combination

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to achieve the same advantage or result discovered by applicant. See, e.g., *In re Kahn*, 441 F.3d 977, 987, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)". As shown above, the combination presented by the examiner results in the same method and therefore the same article as claimed by applicant.

24. Applicant has asserted on page 12 of the remarks that it is not clear why it is relevant that one would have optimized the amount of compression in order to increase the frangibility of the laminate and further asserts that the support this statement provides to show that this optimization would inherently result in the method and article claimed by applicant is "misguided and nowhere supported by the record". Likewise, it is unclear to the examiner what basis Applicant has for the assertion that the examiner's explanation of the rationale behind the *prima facie* case of obviousness previously set forth is "misguided". As clearly shown above, the combination of Weiteder with Masui produces the same method and article claimed. Therefore, the examiner's assertions are clearly supported by the record. The optimization of this method according to the motivation of Masui to provide a more frangible laminate would not result in the core layer of the laminate being compressed between 20-70% or 30-60% as these ranges are rather broad and no criticality has been shown. Additionally, "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed.Cir. 1990)"

25. In response to applicant's request on page 14 of the remarks that the examiner "explain the basis for concluding that combining Masui's compression with Weiteder's

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perforations would necessarily result in the compression line and the perforation line being formed in relation to one another such that a build-up of thermoplastic material around the perforation line after the laser burning is substantially located entirely below the level of the surrounding surface of the packaging laminate on the first side” applicant is directed towards the remarks in the previous office actions as well as those enumerated above.

26. Applicant’s arguments regarding Bowen and Mayall on pages 14-17 of the remarks are moot in light of the new grounds of rejection presented above.

27. The examiner notes that applicant has asserted repeatedly that the combination of Weiteder with Masui does not result in a laminate with the thermoplastic residual material substantially below the level of the surrounding surface. However, the recitation of “substantially” does not require that the entirety of the thermoplastic residual material be below the surrounding surface. The examiner takes the broadest reasonable interpretation of the recitation of “substantially” to mean that the thermoplastic build up is at least 50% disposed below the level of the surrounding laminate. Considering that thermoplastic layers on laminates are typically much thinner than the paperboard layer underneath, it would not require very much compression of the paperboard layer in order for a laser perforation line formed to have the residual thermoplastic material disposed substantially below the level of the surrounding laminate. Indeed, it is more likely that one of ordinary skill optimizing the amount of compression to increase frangibility would result in an amount of compression within the ranges claimed by applicant since frangibility increases with the amount of compression

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than one optimizing the amount of compression in order to merely have the residual thermoplastic material since the paperboard would not be required to be very compressed in order for this material to be disposed below the level of the surrounding laminate.

28. Since the examiner has established a *prima facie* obviousness rejection of the claimed invention based on inherency, the burden is on applicant to provide evidence to the contrary. (See MPEP 2112 V “[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency’ under 35 U.S.C. 102, on *prima facie* obviousness’ under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted].” The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)) Additionally, it is noted that “the arguments of counsel cannot take the place of evidence in the record”, *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). It is the examiner’s position that the arguments provided by the applicant regarding whether a laminate produced by the combination of Weiteder and Masui has the thermoplastic residual materially substantially disposed below the surrounding surface must be supported by a declaration or affidavit. As set forth in MPEP 716.02(g), “the reason for requiring evidence in a declaration or affidavit form is to obtain the assurances that any statements or representations made are correct, as provided by 35 U.S.C. 24 and 18 U.S.C. 1001”.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michele L. Jacobson  
Examiner /M. J./  
Art Unit 1794

/Rena L. Dye/  
Supervisory Patent Examiner, Art Unit 1794

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